

Sanitary Engineering Degrees Awarded in 1958

Institution	Doc- tor's	Mas- ter's	Bache- lor's	Institution	Doc- tor's	Mas- ter's	Bache- lor's
Alabama Polytechnic In- stitute.....		0	¹ 10	New York University.....	0	3	2
Alabama, University of.....		0	0	North Carolina State Col- lege.....	0	2	-----
Arkansas, University of.....		2	-----	North Carolina, Univer- sity of.....		6	-----
Brooklyn, Polytechnic In- stitute of.....		0	-----	North Dakota, Univer- sity of.....		1	-----
California Institute of Technology.....	1	3	1	Northeastern University.....	0	0	0
California, University of.....	1	¹ 13	2	Northwestern Technologi- cal Institute.....	¹ 2	¹ 5	-----
Case Institute of Technol- ogy.....	0	0	0	Ohio State University.....	0	2	2
Cincinnati, University of.....		0	3	Oklahoma Agricultural and Mechanical College.....	0	0	4
Colorado, University of.....		0	0	Oklahoma, University of.....	0	¹ 4	0
Connecticut, University of.....		0	-----	Oregon State College.....	(²)	(²)	-----
Cornell University.....	1	1	1	Pennsylvania State Uni- versity.....	0	0	1
Florida, University of.....	1	2	7	Puerto Rico Agricultural and Mechanical College.....			0
Georgia Institute of Tech- nology.....	0	0	7	Purdue University.....	0	4	3
Harvard University.....	3	¹ 7	1	Rensselaer Polytechnic Institute.....		0	3
Idaho, University of.....		0	0	Rice Institute.....		0	-----
Illinois Institute of Tech- nology.....	0	0	-----	Rutgers University.....	1	¹ 4	1
Illinois, University of.....	0	0	2	South Dakota State Col- lege.....		0	2
Iowa State College.....	0	1	3	Southern California, Uni- versity of.....		2	-----
Iowa, State University of.....	¹ 2	0	9	Southern Methodist Uni- versity.....		¹ 1	-----
Johns Hopkins Univer- sity.....	1	¹ 6	-----	Syracuse University.....	0	0	0
Kansas, University of.....		2	¹ 3	Tennessee, University of.....		1	-----
Kentucky, University of.....	0	0	0	Texas, Agricultural and Mechanical College of.....	0	¹ 2	-----
Maine, University of.....		1	3	Texas Technological Col- lege.....		(²)	(²)
Marquette University.....		-----	25	Texas, University of.....	0	2	¹ 2
Maryland, University of.....		0	0	Tulane University of Lou- isiana.....		0	1
Massachusetts Institute of Technology.....	1	¹ 11	-----	Utah, University of.....	0	0	-----
Massachusetts, University of.....	0	0	0	Virginia Polytechnic In- stitute.....	0	2	8
Michigan College of Min- ing and Technology.....		0	¹ 12	Washington, State College of.....	0	1	1
Michigan State College.....	¹ 1	1	-----	Washington University.....		(²)	-----
Michigan, University of.....	0	¹ 14	3	Washington, University of.....	0	3	0
Minnesota, University of.....	0	¹ 13	1	West Virginia University.....		(²)	(²)
Mississippi State College.....		(²)	(²)	Wisconsin, University of.....	1	¹ 2	¹ 5
Missouri School of Mines and Metallurgy.....		1	5				
Missouri, University of.....		(²)	(²)	Total.....	16	128	148
Nebraska, University of.....		0	-----				
Newark College of Engi- neering.....		2	12				
New Hampshire, Univer- sity of.....		(²)	-----				
New Mexico College of Agriculture and Me- chanical Arts.....		1	3				

¹ Includes foreign nationals. ² Data not available from these schools for 1958.

NOTE: Leaders (-----) indicate no specialization offered at this level.

During the period from July 1957 through June 1958, 142 graduate degrees in sanitary engineering were conferred by institutions in the United States: 128 master's degrees and 16 doctor's degrees. During the same period, 148

students completed undergraduate programs specializing in sanitary engineering.

The table above shows the awarding institutions and the number and level of degrees which these institutions reported as conferred,

Engineering degrees awarded annually, by type of degree, 1951-58

Year	Number sanitary engineering degrees	Schools awarding sanitary engineering degrees	Schools offering sanitary engineering curriculums	Total number engineering degrees ¹	Number sanitary engineers per 1,000 engineering degrees
Bachelor's degrees					
1958.....	148	33	45	35,332	4.2
1957.....	145	31	43	27,748	5.2
1956.....	208	32	53	23,547	8.8
1955.....	141	32	44	20,200	7.0
1954.....	164	32	40	19,707	8.3
1953.....	216	36	41	21,642	10.0
1952.....	216	36	41	27,155	8.0
1951.....	244	35	39	37,904	6.4
Master's degrees					
1958.....	128 (29)	35	61	5,788	22.1
1957.....	152 (39)	41	64	5,203	29.2
1956.....	124 (31)	33	67	4,678	26.5
1955.....	134 (34)	33	53	4,444	30.2
1954.....	120 (25)	30	56	4,130	29.1
1953.....	102 (20)	25	57	3,726	27.4
1952.....	105 (22)	29	57	4,132	25.4
1951.....	152	26	57	5,134	29.6
Doctor's degrees					
1958.....	16 (4)	12	36	647	24.7
1957.....	11 (1)	6	32	596	18.5
1956.....	9 (1)	7	27	610	14.8
1955.....	11 (2)	4	28	599	18.4
1954.....	9	5	26	590	15.3
1953.....	5	4	24	592	8.4
1952.....	9	5	23	586	15.4
1951.....	7	4	25	586	11.9

¹ See Armsby, H. H., and Lewis, J. C.: Engineering enrollments and degrees in ECPD-accredited institutions: 1959. *Journal of Engineering Education* 49: 482-498, Feb. 15, 1959.

NOTE: Figures in parentheses represent nationals of other countries included in larger figure.

irrespective of the nomenclature of the degree. A list of all schools offering such training is available from the authors. Similar data for the period since 1889 appear in the literature (1-4) or have been distributed by the Public Health Service.

Comparative data on the conferment of

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degrees for the years 1951-58 are given in the tabulation above.

Undergraduate Degrees

Forty-five institutions offered undergraduate electives in sanitary engineering during the academic year 1957-58. Thirty-three of these schools reported that 148 graduates had received undergraduate training toward the bachelor's degree in sanitary engineering or had a sanitary engineering major or option. Undergraduate emphasis on sanitary engineer-

ing continues to show a downward trend. The average number of graduates per year for the 10-year period 1948-57 was 202, and for the 5-year period 1953-57, 175.

Master's Degrees

Thirty-five of the 68 schools offering graduate training for the master's degree in sanitary engineering awarded 128 degrees, 29 of them to foreign nationals. The remaining 31 schools (45 percent) reported no graduates.

Eleven schools had 4 or more graduates and accounted for 87 of the total number of degrees conferred at this level. Of these 11 schools, 6 have averaged over 5 master's degrees per year for the 10 years 1949-58. The average number of master's degrees conferred per year for the 10-year period 1948-57 was 134, and for the 5-year period 1953-57, 126.

Doctor's Degrees

In 1958, 12 institutions awarded a total of 16 doctor's degrees in sanitary engineering, 4 of

them to foreign nationals. Twenty-five other schools offered a sanitary engineering program at the doctorate level, but reported no awards of degrees.

Three of the 12 schools have awarded 1 or more doctor's degrees each year for the past 5 years and have accounted for over 55 percent of the doctorates in sanitary engineering over that same period. For the 10-year period 1948-57, the average number of doctor's degrees per year was 7.3, and the average for the 5-year period 1953-57 was 9 degrees.

REFERENCES

- (1) Miller, A. P.: Graduates from undergraduate sanitary engineering courses in the United States. Pub. Health Rep. 66: 369-374, Mar. 23, 1951.
- (2) Miller, A. P.: Sanitary engineering degrees given in 1954. Pub. Health Rep. 70: 1039-1040, October 1955.
- (3) Laubusch, E. J., and Ludwig, H. F.: Sanitary engineering degrees awarded in 1955. Pub. Health Rep. 71: 945-946, September 1956.
- (4) Erickson, F. K., and Butrico, F. A.: Sanitary engineering degrees awarded in 1957. Pub. Health Rep. 74: 81-83, January 1959.

Exhibit on PHS Contributions to Medical Research

An exhibit on some of the contributions of the Public Health Service to medical research during the period 1900-1940 was held in the Service's National Library of Medicine from September through November 1959.

Selected papers, books, some in foreign languages, reports, memorabilia, and photographs demonstrated the work of a number of Public Health Service scientists who were associated largely with the Hygienic Laboratory and the National Institutes of Health. Their activities advanced knowledge of such diseases as hookworm disease, tularemia, pellagra, plague, Rocky Mountain spotted fever, encephalitis, psittacosis, and typhoid and typhus fevers. Contributions were also in chemistry and pharmacology—hydrogen ion determination, discovery of the thyroid hormone in the blood, and antineuritic vitamins.

Scientists represented in the exhibit were Dr. Milton Rosenau, Dr. John F. Anderson, Dr. George W. McCoy, Dr. R. E. Dyer, Dr. Edward Francis, Dr. James P. Leake, Dr. Charles Armstrong, Dr. Wade H. Frost, and Dr. William Wherry. Chemists, pharmacists, and zoologists were Reid Hunt, Atherton Seidell, Maurice I. Smith, William Mansfield Clark, and C. W. Stiles.